

Amendments to Abstract

Please replace the abstract on page 61 with the following amended abstract:

ABSTRACT

A method for ~~optimal~~ workforce scheduling is disclosed for ~~an~~ a contact center environment in which workload due to a plurality of contact types vary both during the course of an operating day and from one day to another during scheduling period (e.g. a week). The method begins by acquiring agent and skill requirements for all periods and contact types to be scheduled. The method also acquires the contact center information including agent skill groups, agent work groups, tour and shift scheduling rules, agent availability, objective criterion to be optimized and its parameters. The method then develops a Mixed Integer Programming (MILP) model for the scheduling environment to meet all requirements and constraints. The method applies an optimization algorithm that uses the Branch and Cut (B&C) algorithm with a Rounding Algorithm to improve performance. ~~The MILP models disclosed use an innovative implicit break and days-off scheduling approach to reduce the size of the MILP problem to be solved.~~ The method is unique in it's ability to locate a globally optimal or near optimal workforce schedule with the lowest possible cost or paid (also scheduled) time or the maximum agent satisfaction. Once ~~an optimal~~ a solution to the MILP model is found, a detailed ~~optimal schedule is~~ schedules are developed by assigning daily shifts to work patterns and the breaks scheduled to daily shifts, and days off scheduled to weekly tours.

Amendments to the Drawings:

The attached sheets of drawings include changes to FIG. 4. These sheets, which include FIG. 4., replaces the original sheets including FIG. 4.

In FIG. 4., the following steps have been amended:

Step 16:

~~If a feasible solution to the MILP model is available, update~~ Update the best known integer feasible solution in the B&C algorithm

Step 21:

Stop the B&C algorithm. ~~Go to rostering~~ and report schedules

Step 22:

Is the solution ~~feasible and~~ violating integrality constraints?

Step 36:

Store the solution if it has fewer ~~infeasibilities~~ agent shortages than the best known solution. Return to B&C algorithm

Attachment: Replacement Sheet